Garment Chain

Transparency to transform the textile space with NFTs

The Garment Chain DAO will be an NFT-based DAO to identify individual pieces of clothing and their inputs, verifying real goods, reducing counterfeiting, and increasing the transparency of garment supply chains.

By addressing the large market of luxury fash[...] onboard millions of people onto the block[...] opportunity to transparency will bring [...] workers, including "tips" from consumers.

Garment Chain

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Why the Fashion Industry

- Fashion infringement and knock-offs steal from the high end of the market but impacts everyone as it costs the European economy alone EUR 26.3 billion of revenue and more than half a million direct and indirect jobs lost annually by the sector and results in less ability to pay upstream producers fairly.

- Fashion is a large, complex and old supply chain with many inefficiencies and inequalities exacerbated by middlemen at the low end.

Market Size and Growth

The Global Luxury Fashion Market has an estimated value of USD 91 billion in 2022 and USD 103 billion in 2023, with expectations to grow to USD 278 billion by 2031. We anticipate our product to be ready for market in late 2023.

Capturing 1% of this market, charging a 1% minting fee for each luxury item to be tracked as an NFT, would result in over USD 10 million in revenue in 2023. Minting NFTs of the inputs to luxury items would add to this amount.

Additional revenues would come as finished luxury items are re-sold, as the smart contract would pay a recurring revenue based on the value it was sold for each time an item is resold.

Revenues would grow exponentially as we increase our market share and move beyond the global luxury fashion market.

Composable NFTs, "tipping" the workers who made your clothes, and Physical Backed Tokens set us a from other supply chain transparency tools built on the blockchain.

Value Proposition

- By creating a digital certificate of each fashion item, there is a unique digital ID and you can verify if what you buy is not a knock-off.

- We also create additional value for digital certificate owners who could either resell these items or equip their avatars in the metaverse with these digital representations of the items.

- Upstream companies, like makers of buttons, zippers, fabrics, etc., can track their products´ use, creating business intelligence... even cotton producing farmers see where their production goes.

- Consumer to producer linkages: Workers throughout the supply chain will have digital IDs, and this ID can also serve as a digital location to receive tips from consumers.

What are other companies doing in this space?

Amazon announced that in April 2023 they will launch an NFT marketplace, with NFTs linked to physical fashion products. For those who do not have crypto wallets, Amazon will drop the NFTs into their existing Amazon account. This is likely to onboard tens of millions of consumers quickly into the NFT space, and can be viewed as validation of the concept of NFTs tracking fashion items. It would be important that once the details of Amazon´s project are available, Garment Chain should see how this platform can be integrated and used with Amazon´s marketplace. At the same time, Garment Chain´s initial focus on luxury markets targets a narrower group of consumers than the broader Amazon marketplace.

Prada has stepped into this space, issuing a limited edition gender neutral sweater which includes an NFT that is "gifted" when the sweater is purchased.

NIKE has purchased RTFKT Studios, which it calls "a leading brand that leverages cutting edge innovation to deliver next generation collectibles that merge culture and gaming." (Note the use the term "collectibles" in this case is another way of saying "NFTs.")

Business Model: We make money minting NFTs

- The NFTs will be written so that an initial minting fee (fee for each token created) is paid to Garment Chain for as a percentage of the value of the item for which the NFT is minted. Each time the item is resold, and the original producer and Garment Chain will also receive revenue. These percentages will be low enough to not be a barrier to any potential user but will provide recurring revenue.

- Over 2 billion t-shirts are produced annually, ranging from low end up to Gucci t-shirts averaging over USD 600 each. A tiny fraction of the t-shirt market, let alone all of the garment sector, would be enough for this DAO to sustain itself .

What have we done?

- In completing a grant from the DEVxDAO, we have designed a plan for the governance structure of the Garment Chain DAO, Milestone 1, and we have surpassed the requirements of Milestone 2 by creating the architecture for "composable NFTs," "Physical-Backed Tokens" and outlined a tipping system. In doing so, samples of the code have already been prepared.

- We also have Letters of Intent from brands who are interested in piloting this system, and have analyzed what competition in this sector is doing.

Milestone 1 DAO Governance

- DAO members will follow a hybrid model, of those who are invited to join the DAO due to their contributions or expertise, as in the DEVxDAO, and those who hold tokens.

- Based on the MVPR model of the DEVxDAO, reputation can be staked as well to votes in the DAO's policymaking. Those invited to be voting members of the DAO due to individual contributions or expertise would see stake a percentage of their "reputation" in the system on the vote, putting more "reputation" (and more voting power), behind those projects they more strongly support.

- Votes will be based on NFTs held. Thus, a fashion brand which currently holds many NFTs holds voting weight in this system, while a brand no longer using this system and who has sold all clothing items linked to NFTs in this system would no longer have voting rights. Retail consumers, who will hold the NFTs of the garments they own, are also part of this system.

- Details on this can be found at [garmentchain/daogovernance at main · peterjohnson10/garmentchain (github.com)](github.com)

Milestone 2 How does our NFT system work ?

Step 1

Each raw material´s information is uploaded to the blockchain at each point along the supply chain journey. Each atomic unit of product is uniquely identified and is represented by a Digital Certificate (NFT).

Step 2

Digital Certificates for batches of the raw materials and other inputs are put together as components of a composable Certificate (composable NFT), resulting in a "final product NFT" that traces the full history of the product and its inputs. The transactions can identify the processes and manufacturers used, that can be traced to the previous manufacturing stage. This final product NFT is issued for each valid article of clothing, and that token is linked to a QR or barcode that will be included on the clothing´s label.

Step 3

The final product is then shipped to the retail store and recorded as a transaction on the blockchain. When a consumer purchases the final product, the transaction is also recorded on the blockchain.

Step 4

Finally, the consumer can use a smartphone to scan the product's label providing full product history and validating the product to the consumer.

As an NFT holder, there will be options for th individual garments to participate in com and to participate in the DAO itself.

What did we implement?

Composable NFTs

Each fashion product's information is uploaded to the blockchain at each point along the supply chain journey. Each atomic unit of product is uniquely identified. The code of how this would work has already been written and is available to review on GitHub.

Tipping your garment worker

Once all workers have a digital ID, a wallet will also be configured so that individual workers can receive tips from consumers. This will be a later stage of the project, as described in the timeline.

Physical Backed Tokens

A description of how Physical–Backed Tokens (PBTs) would work in principle has been drafted and is available on GitHub. The summary is that a microchip would be inside of the garment, readable by a simple smart-phone. With this, the ownership of the physical good and the NFT would be linked. The actual selection of a partner and design of how to insert microchips into the clothing items still needs completion.

More detail?

On GitHub please see detailed examples of the code and details about Composable NFTs and Physical Backed Tokens. garmentchain/architecture at main · peterjohnson10/garmentchain (github.com)

Which target companies do we have contacts with already?

With whom do we have Letters of Intent signed?

SCARABAEUS SACER

ABURY

afro fashion

GIC | GITEC-IGIP Consulting Group
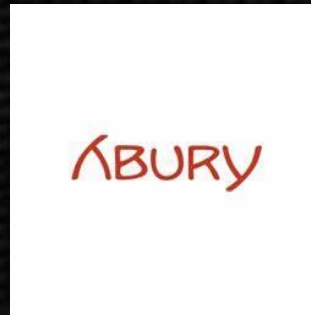
What funding do we have so far?

The DEVxDAO has given us an initial grant for EUR 50,000 for the design of this system, of which EUR 35,000 have been disbursed as the team´s first and second milestones were reached.

The team also has access to 98,000 Stellar Lumens, another cryptocurrency, which were awarded for the development of a predecessor this project, the Ayadee TRAK system.

(NOTE: TRAK is a simple supply chain system built by two of our team members in 2019 and which has been used on the Stellar blockchain to track data on agricultural value chains, as well as the shipment of medical equipment.)

Road Map

- July 2023: Build pilot of composable NFT system
- August 2023: Test composable NFTs with partners while inviting early supporters to establish the Garment Chain DAO, including establishment of a legal entity as a Swiss non-profit association.
- September 2023: Public launch event – going beyond pilots
- October 2023: Add function of "Physical Backed Tokens" allowing the option scan the physical item the NFT represents without any bar code or QR code, but rather an embedded microchip linking the NFT to the physical item.
- December 2023: Add wallets for each participant in the supply chain, with the function that individual workers in a supply chain can receive tips.
- Throughout this time period, seek partnerships with fair trade certification associations, look to customize tools to track new global (especially European) standards on environmental and labor impact of products and raise funds.
- Future step: Track "decomposability" of products, decomposing the NFTs as component parts may be recycled or reused separate from the other components.

Next steps?

We need funding for our team to be able to focus both on fully building this system and implementing it with our initial customers.

We have outlined what we want to build and created some of the code, but the next step is implementation, and for implementation we will seek more funding.

Questions?